Abstract No. tabo262

Investigations of Local Crystal Structure around Trace Impurities in Hydroxy- and Fluoro-Apatite

A. Tabor-Morris (Georgian Court College)

Beamline(s): X9B

Introduction: The objective of this research is to characterize the nearest neighbor crystal structure environment around trace quantities of the impurity elements strontium (Sr), iron (Fe) and lead (Pb) incorporated into crystalline hydroxy-apatite and fluoro-apaptite samples. The experimental technique of X-ray Absorption Fine-Structure Spectroscopy (XAFS) is used to enhance x-ray diffraction studies. Samples studied are from biological, geological and synthetic sources.

Methods and Materials: XAFS

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